

Field Meeting Reports

Report on the BMIG spring field meeting to Linlithgow 2015

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Introduction

The 2015 BMIG spring field meeting was based at the Low Port Centre in Linlithgow, West Lothian, from 10 to 13 April. Linlithgow is situated 20 miles west of Edinburgh allowing easy access to a range of habitats across the Lothians and Fife, and the meeting included a group visit to the Royal Botanic Garden in Edinburgh (RBGE).

Methods and sites

The majority of localities visited during the meeting are Scottish Wildlife Trust Reserves (Addiewell Bing, Brock Wood, Carlingnose Point, Dumbarnie Links, Hermand Birchwood, Pease Dean and Petershill). Aberlady Bay is a Local Nature Reserve managed by East Lothian Council. Midlothian Council manages Roslin Glen Country Park, West Lothian Council manages Beecraigs Country Park, the Buccleugh Estate manages Dalkeith Country Park and the City of Edinburgh Council manages the Water of Leith. Arthur's Seat and Duddingston Loch both fall within Holyrood Park, managed by Historic Scotland, although the Loch and some land around it are also a Scottish Wildlife Trust Reserve. Historic Scotland also manage Linlithgow Peel which contains the Palace, St Martin's Church and the Loch. The Low Port Centre, which is adjacent to the Peel, has its own nature garden where BMIG members were able to record and the garden was also used for a discussion of field collecting techniques.

The group visited 17 different localities, the majority of which were in Midlothian or West Lothian, but included two sites in Fifeshire, two in East Lothian and one in Berwickshire (Table 1). The division of some localities into smaller units has produced a longer list of 32 recording sites. For the purposes of this report the research and nursery glasshouses at the Royal Botanic Garden have been lumped together, as have the outdoor areas of RBGE, while the public glasshouses have been reported on separately (Tables 2-4). However, when calculating the number of localities where a species has been recorded RBGE records have been simplified further as being either indoor (*i.e.* glasshouses) or outdoor (*i.e.* gardens).

In attendance at the meeting were Tony Barber (TB), Victoria Burton (VB), Kevin Clements (KC), Gordon Corbet (GC), Mike Davidson (MBD), Una Garland (UG), Steve Gregory (SJG), Paul Harding (PH), Bernard Johnson (BJ), Paul Lee (PL), Angela Lidgett (AML), Keith Lugg (KL), Helen Read (HR), Duncan Sivell (DS) and Imogen Wilde (IW).

Results

Three millipede species were recorded from Scotland for the first time. *Poratia digitata* (Fig. 1), *Prosopodesmus panporus* and *Haplopodoiulus spathifer* were all found in glasshouses at the Royal Botanic Garden. In addition, three species that were first found in Britain at RBGE, the centipede *Lithobius lapidicola*, the millipede *Cylindroiulus salicivorus* (Fig. 2) and the woodlouse *Styloniscus mauritiensis* (Fig. 4), were all confirmed to still be present. The millipedes *Cylindroiulus londinensis* and *Chordeuma proximum* and the landhopper *Arcitalitrus dorrieni* all appear to show a significant leap northwards in their eastern distributions. These millipedes were recorded both outdoors and indoors at

the RBGE, while the landhopper was found at a single location along the Water of Leith within Edinburgh. The woodlouse *Oritoniscus flavus* (Fig. 3) was recorded several times at Dalkeith Country Park, confirming the continued presence of this species in Midlothian.

Table 1. A list of sites visited during the field meeting.

Site	Location	OS grid ref	VC	date	recorders
1	Aberlady Bay	NT 471 804	82	11/04/2015	VB, UG, SJG, KL
2	Addiewell Bing	NT 003 631	83/84	11/04/2015	PL, DS, HR, IW
3	Arthur's Seat	NT 275 729	83	13/04/2015	DS
4	Beecraigs Country Park	NS 997 741	84	11/04/2015	PL, DS, HR, IW
5	Brock Wood	NT 662 748	82	12/04/2015	KC, SJG, KL
6	Carlingnose Point	NT 135 809	85	12/04/2015	GC, DS
7	Dalkeith Country Park	NT 334 676	83	11/04/2015	TB, VB, KC, GC, UG, SJG, AML, BJ, KL
8	Duddingston Loch	NT 279 725	83	13/04/2015	DS
9	Dumbarnie Links	NO 441 022	85	12/04/2015	GC, DS
10	Hermard Birchwood	NT 031 618	83	11/04/2015	PL, DS, HR, IW
11	Linlithgow				
11a	Low Port Centre	NT 003 772	84	11-12/04/2015	TB, VB, KC, SJG, AML, HR
11b	Palace and Church	NT 002 773	84	09-13/04/2015	KC, GC
11c	around Linlithgow Loch	NT 002 773	84	09-13/04/2015	MBD, KC
12	Pease Dean	NT 790 704	81	12/04/2015	KC, SJG, KL
13	Petershill	NS 984 696	84	11/04/2015	PL, DS, HR, IW
14	Redhall Walled Garden	NT 219 704	83	13/04/2015	MBD
15a	Roslin Glen Country Park	NT 271 626	83	11/04/2015	TB, KC, GC, AML, BJ
15b	Rosslyn Chapel and Cemetery	NT 274 630	83	11/04/2015	TB, KC, GC, AML, BJ
16	Royal Botanic Garden Edinburgh (RBGE)				
16a	Arid Lands House	NT 247 755	83	10/04/2015	KC, KL
16b	Ferns and Fossils House	NT 247 755	83	10/04/2015	TB, KC
16c	Montane Tropics House	NT 247 755	83	10/04/2015	KC, GC, UG, SJG,
16d	Orchid & Cycad House	NT 247 755	83	10/04/2015	KC, KG, MBD, SJG, HR, DS
16e	Plants & People House	NT 247 755	83	10/04/2015	TB
16f	Wet Tropics House	NT 247 755	83	10/04/2015	SJG, KL
16g	Temperate Houses	NT 247 755	83	10/04/2015	TB, KC, MBD, SJG, KL, HR
16h	Tropical Palm House	NT 247 755	83	10/04/2015	TB, KC, GC, PL, AML, KL, SJG, HR, DS
16i	non-public glasshouses	NT 247 755	83	10/04/2015	TB, VB, KC, GC, MBD, AML, KL, UG, SJG, DS
16j	RBGE outdoor gardens	NT 24 75	83	10/04/2015	TB, VB, KC, MBD, PL, AML, HR, DS
17	Water of Leith				
17a	near Currie	NT 188 679	83	13/04/2015	MBD
17b	by The Colonies	NT 247 750	83	10/04/2015	DS
17c	The Dene	NT 244 742	83	10/04/2015	DS

A total of 60 BMIG species were recorded during the course of the meeting, comprising 33 millipedes, 14 centipedes, 12 woodlice and one landhopper. Five of the millipedes, *Brachychaeteuma bagnalli*, *Craspedosoma rawlinsii*, *Choneiulus palmatus*, *Allajulus nitidus* and *Cylindroiulus londinensis* are Nationally Scarce (Lee, 2015). One of the centipedes, *Lithobius lapidicola*, is listed as Near Threatened (Lee, 2015), but this is based on its distribution in the wild and records from glasshouses at RBGE should not influence the conservation status of this centipede.

Millipedes

The millipedes were well represented at this field meeting with 33 species being recorded. The most significant finds were amongst the species found in glasshouses at the Royal Botanic Garden, of which *Prosopodesmus panporus*, *Poratia digitata* and *Haplopodoiulus spathifer* are all new for Scotland.

Helen Read and Angela Lidgett both recorded *P. panporus* from the Tropical Palm House. This species was first collected in 1975 by Adrian Rundle in four of the tropical houses at Kew Gardens and was subsequently described as a species new to science (Blower & Rundle, 1980). The provenance of this millipede is unclear as other *Prosopodesmus* species range across the tropics from South East Asia to Africa and South America. At Kew this species appears to favour the tropical palm house over other glasshouses, which is consistent with the records made in Edinburgh. This species does not appear to have been recorded anywhere else apart from Kew Gardens (Lee, 2006), which means RBGE is only the second known site for this millipede.

Poratia digitata (Fig. 1) was recorded by Helen Read, Steve Gregory and Keith Lugg, and was found in the Tropical Palm House, the Orchid & Cycad House and in House 18 (a non-public glasshouse). *Poratia digitata* has been previously recorded from four localities in England, including repeated observations from Kew Gardens (Lee, 2006). Gregory & Lugg (2020) have already reported these Edinburgh records being the first for Scotland, and in 2017 they also found *P. digitata* in the Tropical Dome of National Botanic Garden of Wales, which is another national first.

Haplopodoiulus spathifer was found by Keith Lugg and Mike Davidson in temperate glasshouses at RBGE. This is another millipede that was first recorded in Britain from Kew Gardens (Corbet & Jones, 1996). For several years this species seemed to be restricted to Kew and two related sites in the south east of England (Lee, 2006), but more recently it has appeared at other sites including the Isle of Wight and Cornwall (Barber, 2015). In the south of England this species lives outdoors and can be abundant where it occurs. It will be interesting to see whether *H. spathifer* will venture out of the glasshouses in Edinburgh to colonise the gardens.

Cylindroiulus salicivorus (Fig. 2) was reported as new to Britain based on specimens collected by Charles Rawcliffe from glasshouses 5 and 6 in 1987 and 1988 (Read, Corbet & Jones, 2002). In 1988 Gordon Corbet confirmed this millipede was still present at RBGE and also found it at the St Andrews Botanic Garden in Fife. Apparently still only known in Britain from these two Scottish sites (Lee, 2006; Gregory & Lugg, 2020), this millipede was recorded from six different glasshouse areas in RBGE during this field meeting (Table 2) by Steve Gregory, Helen Read, Keith Lugg and Kevin Clements.

Oxidus gracilis was similarly widespread across the glasshouses (Table 2) but more common than *C. salicivorus* and was reported by nearly all the BMIG members who visited RBGE. *Oxidus gracilis* is a distinctive millipede that is frequently found in nurseries and glasshouses across Britain, and often in good numbers (Lee, 2006; Gregory & Lugg, 2020). One outdoor record of *O. gracilis* was made by Kevin Clements, but as this millipede was dead the record has not been added to Table 2 on the presumption this species does not survive outdoors.

Cylindroiulus londinensis was recorded multiple times at RBGE both inside the glasshouses and outdoors in the wider gardens. This native millipede is often associated with woodland and is more common in western Britain (Lee, 2006). These Edinburgh records are a significant leap northwards in

this species' eastern range, as although *C. londinensis* has been recorded as far north as Skye on the west coast, these appear to be the first Scottish records of this species on the east coast. It is notable that this species was only recorded at RBGE and not found elsewhere; it will be interesting to see if this species expands its local range in years to come.



Figure 1: *Poratia digitata*. Live specimen from RBG Edinburgh (image © Keith Lugg).



Figure 2: *Cylindroiulus salicivorus*. Live specimen from RBG Edinburgh (image © Keith Lugg).

Table 2: Millipedes recorded during Linlithgow field meeting (*RBGE glasshouses combined when counting number of sites per species)

	1	2	3	4	5	6	7	8	9	10	11 a	11 b	11 c	12	13	14	15 a	15 b	16 a	16 b	16 c	16 d	16 e	16 f	16 g	16 h	16 i	16 j	17 a	17 b	17 c	*No. Sites
<i>Glomeris marginata</i>					X									X			X	X														4
<i>Brachychaeteuma bagnalli</i>																												X				1
<i>Craspedosoma rawlinsii</i>				X			X																									2
<i>Nanogona polydesmoides</i>		X												X	X																	3
<i>Chordeuma proximum</i>																										X		X				2
<i>Melogona scutellaris</i>		X			X		X							X	X													X				6
<i>Oxidus gracilis</i>																					X	X		X	X	X	X					1
<i>Brachydesmus superus</i>		X			X		X	X					X	X	X											X		X	X	X		11
<i>Polydesmus angustus</i>	X	X	X		X	X	X		X	X	X		X	X	X	X	X										X	X	X	X	X	18
<i>Polydesmus coriaceus</i>														X																		1
<i>Polydesmus deniculatus</i>																	X															1
<i>Prosopodesmus panporus</i>																										X						1
<i>Poratia digitata</i>																						X				X	X					1
<i>Ophiodesmus albonanus</i>											X		X																			2
<i>Choneiulus palmatus</i>						X															X	X		X	X							2
<i>Proteroiulus fuscus</i>		X		X	X		X			X	X			X		X										X	X	X				11
<i>Bianiulus guttulatus</i>					X					X	X	X	X	X		X		X	X	X	X	X			X	X		X	X	X		11
<i>Archiboreoiulus pallidus</i>							X						X																			2
<i>Boreoiulus tenuis</i>					X		X		X		X		X				X															6
<i>Nemasoma varicorne</i>										X			X																			2
<i>Julus scandinavicus</i>				X	X	X				X			X		X		X					X										8
<i>Haplopodoiulus spathifer</i>																									X							1
<i>Ophiulus pilosus</i>	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X											X	X	X		18
<i>Allajulus nitidus</i>										X	X		X				X									X	X			X		6
<i>Cylindroiulus britannicus</i>	X	X	X		X	X	X			X			X	X	X	X						X			X	X	X	X	X	X	X	16
<i>Cylindroiulus caeruleocinctus</i>	X									X	X																					3
<i>Cylindroiulus latestriatus</i>	X							X	X																		X					4
<i>Cylindroiulus londinensis</i>																					X		X	X		X	X					2
<i>Cylindroiulus punctatus</i>	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X				X					X	X	X	X	X	22
<i>Cylindroiulus salicivorus</i>																					X	X		X	X	X	X					1
<i>Brachyiulus pusillus</i>	X				X			X	X								X															5
<i>Ommatoiulus sabulosus</i>	X							X				X		X			X															5
<i>Tachypodoiulus niger</i>	X	X	X	X	X		X	X		X	X		X	X	X	X	X											X	X	X	X	18
Species per site:	9	9	5	6	13	5	11	7	6	11	9	3	13	13	9	6	9	5	1	0	7	6	0	4	6	10	9	10	10	7	5	

Table 3: Centipedes recorded during Linlithgow field meeting (*RBGE glasshouses combined when counting number of sites per species)

	1	2	3	4	5	6	7	8	9	10	11 a	11 b	11 c	12	13	14	15 a	15 b	16 a	16 b	16 c	16 d	16 e	16 f	16 g	16 h	16 i	16 j	17 a	17 b	17 c	*No. Sites
<i>Haplophilus subterraneus</i>							X										X				X	X			X		X	X				6
<i>Schendyla nemorensis</i>			X			X	X										X									X		X				5
<i>Geophilus alpinus</i>					X		X							X			X										X					5
<i>Geophilus flavus</i>					X		X				X	X					X															5
<i>Geophilus truncorum</i>	X	X			X		X		X	X				X																		7
<i>Stenotaenia linearis</i>																									X							1
<i>Cryptops hortensis</i>																		X	X		X	X	X				X	X				2
<i>Cryptops parisi</i>			X																													1
<i>Lithobius crassipes</i>		X	X		X		X			X							X															6
<i>Lithobius forficatus</i>		X	X		X	X				X	X	X		X			X	X									X	X		X		13
<i>Lithobius lapidicola</i>																										X						1
<i>Lithobius melanops</i>					X		X			X			X																			4
<i>Lithobius microps</i>	X				X	X	X				X																					5
<i>Lithobius variegatus</i>							X																				X					2
Species per site:	2	3	4	0	6	3	10	0	1	4	3	2	1	3	0	0	6	1	1	1	1	2	1	1	2	0	3	6	0	1	2	

Table 4. Woodlice and landhoppers recorded during Linlithgow field meeting (*RBGE glasshouses combined when counting sites per species)

	1	2	3	4	5	6	7	8	9	10	11 a	11 b	11 c	12	13	14	15 a	15 b	16 a	16 b	16 c	16 d	16 e	16 f	16 g	16 h	16 i	16 j	17 a	17 b	17 c	*No. Sites
<i>Androniscus dentiger</i>					X		X					X		X			X									X		X				7
<i>Haplophthalmus mengii</i>	X						X																									2
<i>Oritoniscus flavus</i>							X																									1
<i>Trichoniscus pusillus agg.</i>	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X									X			X		18
<i>Trichoniscus pygmaeus</i>	X				X						X										X											4
<i>Styloniscus mauritiensis</i>																					X		X			X						1
<i>Philoscia muscorum agg.</i>	X		X		X	X	X	X	X		X		X	X	X	X	X										X			X		14
<i>Platyarthrus hoffmannseggii</i>	X																															1
<i>Oniscus asellus</i>	X	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X							X	X		X		X	X	20
<i>Porcellio scaber</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X		X	X					X	X	X	X	X	21
<i>Porcellionides pruinosus</i>																						X				X						1
<i>Armadillidium vulgare</i>						X		X																								2
<i>Arcitalitrus dorrieni</i>																													X			1
Species per site:	7	3	4	3	6	5	7	5	2	3	5	4	4	3	4	1	4	4	1	0	3	2	0	1	1	2	3	4	1	3	4	

Chordeuma proximum was also recorded in the glasshouses and the outdoor gardens at RBGE. Helen Read found this species in the Tropical Palm House and in woodland near the Rock Garden. There are scattered records of this species in western Scotland but it is thought these may have been introductions (Lee, 2006). *Chordeuma proximum* is normally found in south west England and Wales so these records are quite far outside its expected range.

The most frequently recorded millipede of the meeting was *Cylindroiulus punctatus*, which was found at 22 sites. *Ophiulus pilosus*, *Tachypodoiulus niger* and *Polydesmus angustus* were each recorded from 18 sites, *Cylindroiulus britannicus* was found at 16 sites while *Brachydesmus superus*, *Blaniulus guttulatus* and *Proteroiulus fuscus* were all reported from 11 sites (Table 2).

Other relatively common species recorded from between 5 and 10 sites were *Julus scandinavius*, *Allajulus nitidus*, *Boreoiulus tenuis*, *Melogona scutellaris*, *Brachyiulus pusillus* and *Ommatoiulus sabulosus*, all of which are expected for the area (Lee, 2006). Less frequently recorded but still expected for region were *Cylindroiulus latestriatus*, *Cylindroiulus caeruleocinctus*, *Nanogona polydesmoides*, *Archiboreoiulus pallidus*, *Choneiulus palmatus*, *Craspedosoma rawlinsii*, *Nemasoma varicorne* and *Ophiodesmus albonanus* (Lee, 2006).

Glomeris marginata is at the northern limit of its British range in the Lothians (Lee, 2006). The pill millipede was recorded from three woodland sites and from the cemetery of Rosslyn Chapel.

Polydesmus coriaceus was found at Pease Dean, under dead wood in mixed woodland, by Keith Lugg. This appears to be the third site for this species in Scotland. Previous Scottish records for *P. coriaceus* have come from Hopetoun House, west of Edinburgh, in 1979 and 1983, and from Culzean Country Park during the 2006 BMIG meeting to Ayrshire (Collis, 2007). Although *P. coriaceus* is common in southern England and in Wales, reports of this millipede north of the Humber are scarce (Lee, 2006).

Polydesmus denticulatus is known from the region but this millipede was only recorded once. A single specimen was found at Roslin Glen by Angela Lidgett. *Polydesmus denticulatus* is thought to favour wet woodland and shy away from synanthropic sites (Lee, 2006). Another species with a single record was *Brachychaeteuma bagnalli*, a synanthropic species that is not common in Britain but is known from the Lothians (Lee, 2006). Mike Davidson found *B. bagnalli* at a brownfield site by the Water of Leith near Currie.

Centipedes

Fourteen species of centipede were recorded during the meeting of which *Lithobius forficatus* was the most common, being reported from 13 sites. Other frequently encountered centipedes (recorded from four to seven sites) were *Geophilus alpinus*, *Geophilus flavus*, *Geophilus truncorum*, *Lithobius crassipes*, *Lithobius microps*, *Lithobius melanops*, *Haplophilus subterraneus* and *Schendyla nemorensis* (Table 3).

Lithobius variegatus was found at just two sites, in the grounds of the Royal Botanic Garden and at Dalkeith Country Park. The Scottish distribution of *L. variegatus* is biased towards the west, and although it is known from the Lothians the paucity of records here may not be surprising. *Lithobius forficatus* has a tendency to replace *L. variegatus* in rural sites where the latter species does not occur.

Cryptops hortensis, a common species in southern Britain, was only recorded from RBGE where it was found in a number of glasshouses and also in the wider gardens (Table 3). There are scattered records of *C. hortensis* elsewhere in Scotland and this species seems to be more synanthropic the further north it is found.

A single record of *Cryptops parisi* was made by Duncan Sivell on Arthur's Seat. The British distribution of this centipede is centered on south west England and Wales. Outlying records of *C. parisi* are typically synanthropic and Richards (2018) recently recorded this species from a garden in Sheffield.

The two specimens collected from Arthur's Seat were found under stones embedded in the ground in a small copse of Scots pine. Although this record was made within the City of Edinburgh the location is approximately half a mile from the nearest building.

Lithobius lapidicola was recorded from the Royal Botanic Garden as a species new to Britain in 1986 (Rawcliffe, 1987a). Steve Gregory and Angela Lidgett both recorded this species from the non-public glasshouses at RBGE. This centipede has an odd distribution in Britain as it occurs at a handful of outdoor coastal sites in Kent and Suffolk, but is otherwise a glasshouse species. *Lithobius lapidicola* has been reported from glasshouses in Dorset (Barber, 2009) as well as the Birmingham Botanical Gardens and Whipsnade Butterfly House (Gregory & Lugg, 2020).

Stenotaenia linearis was found in the Temperate House at RBGE by Steve Gregory and Keith Lugg (Gregory & Lugg, 2020). The RBGE is the only known Scottish locality for *S. linearis*, a species more often associated with outdoor synanthropic habitats in southern Britain, particularly around London.

Woodlice

Twelve species of woodlice were recorded during the meeting (Table 4). The commonest species were *Porcellio scaber* (21 sites), *Oniscus asellus* (20 sites), *Trichoniscus pusillus* agg. (18 sites) and *Philoscia muscorum* agg. (14 sites).

Philoscia muscorum is being treated as a species aggregate for the purposes of this report, as we cannot rule out the possibility that some records might have been *Philoscia affinis*, a similar woodlouse that was already present in Britain in 2015 although this was not realised until 2017 (Gregory, 2020). Recent recording efforts in the Lothians have confirmed *P. muscorum* to be widespread across the region, but have not yet found *P. affinis*, which appears to prefer the west of Scotland (Gregory, 2020). It therefore seems likely that the majority, if not all, records of *P. muscorum* agg. reported here will refer to *P. muscorum sensu stricto*. However, as many of these records would have been field observations that cannot be verified they are being treated with caution.

The remaining woodlouse belonging to the “famous five” group of common and widespread species, *Armadillidium vulgare*, is near the northern limits of its range in the Lothians. Although *A. vulgare* is widespread across much of England and Wales, records north of Yorkshire tend to be restricted to coastal areas (Gregory, 2009). This woodlouse was recorded twice during the meeting; from the Fife coast at Carlingnose Point, and from Duddingston Loch in Edinburgh.

Platyarthrus hoffmannseggii is another woodlouse at the northern edge of its British range. This woodlouse appears to be genuinely rare in much of northern England, but it has been recorded at a few sites around the Firth of Forth (Gregory, 2009). A single record of *P. hoffmannseggii* was reported from Aberlady Bay by Una Garland. It is thought this woodlouse was found in the nest of a *Lasius* species, although ant specimens were not collected for verification.

Oritoniscus flavus (Fig. 3) was recorded several times at Dalkeith Country Park on the River North Esk. In Britain this woodlouse is only known from one other site in South Wales, and that population was likely introduced from Ireland where this species is more common (Gregory, 2009). The North Esk population was discovered in 2010 (Sivell & Gregory, 2015) and more recent surveys (Maguire, 2020) give a more detailed account of this species' local distribution. Roslin Glen Country Park is approximately six miles upstream from Dalkeith Country Park and was surveyed during the field meeting, but no *O. flavus* were reported there.

An important isopod record from the field meeting was the rediscovery of *Styloniscus mauritiensis* at the Royal Botanic Garden. This exotic woodlouse was initially found by Charles Rawcliffe in a non-public glasshouse in 1986 and was reported as a new species for Britain (Rawcliffe, 1987b; Collis & Harding, 2007). *Styloniscus mauritiensis* had not been recorded again at RBGE or elsewhere in Britain

since its initial discovery, so Steve Gregory and Keith Lugg made a concerted effort to find this species in 2015. A small number of specimens were recorded in the non-public glasshouses by Keith Lugg and Una Garland, and a larger population of *S. mauritiensis* was discovered in the Montane Tropics House by Steve Gregory and Keith Lugg (Fig. 4). More details of these discoveries have been published by Gregory & Lugg (2018; 2020) who also report *S. mauritiensis* in glasshouses in England and Wales.



Figure 3: *Oritoniscus flavus*. Live specimen from Dalkeith Country Park (image © Keith Lugg).



Figure 4: *Styloniscus mauritiensis*. Live specimen from RBG Edinburgh (image © Keith Lugg).

Among the other woodlice that were recorded, *Androniscus dentiger* was relatively common appearing at seven sites and *Trichoniscus pygmaeus* was found at four sites. *Haplophthalmus mengii* was recorded from Aberlady Bay and Dalkeith Country Park and *Porcellinoides pruinosus* was reported from glasshouses at RBGE.

Amphipods

The landhopper *Arcitalitrus dorrieni* was recorded by Duncan Sivell at a single location along the Water of Leith near Stockbridge. This site is relatively close to the Royal Botanic Garden but the absence of records from RBGE suggests there may be no connection between the two. *Arcitalitrus dorrieni* can be abundant where it occurs and its habit of jumping energetically when disturbed can make it an easy species to find, but not always easy to catch.

The Water of Leith is effectively a wildlife corridor running from the Pentland Hills through the heart of Edinburgh to the meet the sea at Leith. *Arcitalitrus dorrieni* may well be present elsewhere along the waterway, although it was not found at the two other sites surveyed during the field meeting. Conversely the east coast of Scotland may not be the ideal place for this species to thrive. The landhopper has been recorded at several sites in the west of Scotland and this species has a clear western bias in its distribution across Britain (Gregory, 2016).

Discussion

The site with the largest tally of species records was the Royal Botanic Garden Edinburgh, which is not surprising given its combination of glasshouses and wider gardens. The discovery of three new species for Scotland and the rediscovery of other species found new to Britain by Charles Rawcliffe in the 1980s were highlights of this meeting. Of the 35 species recorded at RBGE 27 were found in glasshouses and 20 were recorded outdoors. Everyone who attended the field meeting visited RBGE and the species lists no doubt reflect the increased recording effort that took place.

Dalkeith Country Park produced the largest tally of 28 “wild” species. This site also benefitted from a higher number of visitors, no doubt in search of the woodlouse *Oritoniscus flavus*. Other sites reporting good numbers of species were the woodland reserves of Brock Wood, Pease Dean, Roslin Glen and Hermand Birchwood. The coastal nature reserve at Aberlady Bay produced a decent list and a respectable number of species were also recorded from around Linlithgow where the field meeting was based.

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